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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/624,280

07/22/2003

Richard Ward

TI-32317

7461

23494

7590

10/17/2006

TEXAS INSTRUMENTS INCORPORATED

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EXAMINER

TRAN, KHAI

ART UNIT

PAPER NUMBER

2611

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

58

Office Action Summary	Application No.	Applicant(s)	
	10/624,280	WARD ET AL.	
	Examiner	Art Unit	
	KHAI TRAN	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 15, 25-27 and 40 is/are rejected.
- 7) ☒ Claim(s) 4, 6-14, 16-24, 28-39, 41 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>08/2/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figures 1-5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 10 is objected to because of the following informalities:

Regarding claim 10, line 2, the term, "said interval signals" should be --said first interval signal-- because it depends on claim 6.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. Claims 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 2, line 2, the term "being the or one of said at least one other channel" is not clear to what it refers.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 5, 15, 25-27, 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Waggener (U.S. Pat. 4,166,979), cited by Applicant.

Regarding claim 1, Waggener discloses a circuit as shown in Figures 3 and 4, comprising: a first data channel (a data input) and least one other channel f2; clock synchronization means for generating a local clock signal synchronized with the first data channel (an output signal of a VCO 21 is synchronized with data input signal); timing means (a counter 50) associated with the first data channel for measuring the time since the last data transition on that channel and operate to provide a timing signal indicative of that time (col. 6, lines 44-66); phase detect means (a phase comparator 32), associated with the first data channel, for detecting a representative phase of a selected set of one or more channels, that set comprising, at least, the at least one other channel; phase adjustment means for adjusting the phase of the local clock in response to the timing signal towards the phase of the set (see col. 6, line 44 to col. 7, line 13 showing that when symbol transitions occur, the phase error contribution based on symbol transitions is more heavily weighted than the phase error contribution based on the carrier block by virtue of the different value resistors R1 and R2, so the loop tends to readjust the loop oscillator phase to match the actual symbol transition timing).

Regarding claim 2, Waggener discloses that wherein the set consists of a single channel, being the or one of the at least one other channel, and the representative phase is the phase of the single channel (see Figure 3).

Regarding claim 3, Waggener discloses that wherein the set comprises a plurality of channels (see Figure 4).

Regarding claim 5, Waggener discloses that wherein the set comprises the at least one other channel and the first data channel itself (see Figure 4).

Regarding claim 15, Waggener discloses that wherein the timing means comprises a counter (50).

Claims 25, 26; 27 are similar to claims 1-3. Therefore, claims 25-27 are rejected under a similar rationale.

Regarding claim 40, Waggener discloses that the step of resetting the phase of the local clock to the phase of the first data channel response to a data transition on the channel (col. 6, lines 44-59).

Allowable Subject Matter

WT 6. Claims 4,⁶~~4~~-14, 16-24, 28-39, 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 2611

Tamura et al (US 2002/0196889 A1) disclose a timing signal generating system and receiving circuit for transmitting signals at high speed with less circuitry.

Aoyama (US 2004/0252804 A1) discloses a clock and data recovery circuit.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAI TRAN whose telephone number is (571) 272-3019. The examiner can normally be reached on 7:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JAY PATEL can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



KHAI TRAN
Primary Examiner
Art Unit 2611